claims and their amendments can be found throughout the specification and in the claims as originally filed.

A sequence listing is provided along with a Computer Readable Form of the Sequence Listing. The Sequence Listing includes primer sequences that were not included in the original sequence listing. The undersigned hereby states that the Paper Copy and the Computer Readable Form, submitted in accordance with 37 CFR 1.821 *et seq.* are identical. No new matter has been added by these amendments.

Favorable consideration of this application is respectfully requested.

Respectfully submitted,

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Version to Show Changes Made

The following amendments have been made to the claims:

1. An isolated or substantially pure form of a nucleic acid molecule encoding a human 5-$HT_{4(h)}$ receptor wherein the nucleic acid is capable of hybridising to the molecule of claim 1 or the complementary sequence thereto under conditions of high stringency.

2. The nucleic acid molecule of claim 1 encoding a human 5-$HT_{4(h)}$ receptor comprising the amino acid sequence [illustrated in Figure 1b] of SEQ ID NO:2 or encoding a functional equivalent, derivative or bioprecursor of said receptor.

3. [A] The nucleic acid molecule according to claim 1 [or 2] which is a DNA molecule.

4. [A] The nucleic acid molecule [according to] of claim 3, wherein said DNA molecule is a cDNA molecule.

5. [A] The nucleic acid molecule according to [any of] claim[s] 2 [to 4] comprising SEQ ID NO:2 [the sequence illustrated in Figure 1b].

7. A human 5-$HT_{4(h)}$ receptor encoded by the nucleic acid molecule [according to any] of claim[s] 1 [to 5].

8. A DNA expression vector comprising a nucleic acid molecule [according to any] of claim[s] 3 [to 5].

10. [A] The host cell according to claim 9, which cell is a mammalian cell.

11. [A] The host cell according to claim 10, which mammalian cell is a COS-7 cell.

12. A transgenic cell, tissue or organism comprising a transgene capable of expressing a human 5-$HT_{4(h)}$ receptor protein comprising the amino acid sequence of SEQ ID NO:2 [Figure 1b] or an amino acid sequence of a functional equivalent, derivative or bioprecursor of said receptor.

13. A transgenic cell, tissue or organism according to claim 12 wherein said transgene comprises a nucleic acid molecule according to [any of] claim[s] 1 [to 5].

14. A human 5-$HT_{4(h)}$ receptor protein or a functional equivalent, derivative or bioprecursor thereof, expressed by the cell [according to any] of claim[s] 9 [to 11] or the cell tissue or organism [according to] of claim 12.

16. An antisense molecule comprising a nucleic acid molecule which is capable of hybridising to the nucleic acid of [any of] claim[s] 1 [to 5] under conditions of high stringency.

17. A pharmaceutical composition comprising [a] the molecule [according to] of claim 16 together with a pharmaceutically acceptable carrier, diluent or excipient therefor.

19. A purified or isolated human 5-$HT_{4(h)}$ receptor protein comprising the amino acid sequence [according to Figure 1b] of SEQ ID NO:2 or the amino acid sequence of a functional equivalent, derivative, fragment or bioprecursor of said sequence.

20. A pharmaceutical composition comprising a molecule according to [any of] claim[s] 1 [to 5] together with a pharmaceutically acceptable carrier, diluent or excipient therefor.

21. An antagonist or an agonist of a ligand of the human 5-$HT_{4(h)}$ receptor protein [according to any] of claim[s] 14 [or 19].

23. A method of determining whether a compound is an agonist or an antagonist of a ligand of a human 5-$HT_{4(h)}$ receptor, which method comprises contacting a cell [according to any of claims 7 to 10] transformed or transfected with an expression vector capable of expressing said receptor [protein] with said compound in the presence of said ligand and monitoring cAMP formation in said cell, wherein a change in cAMP formation in the cell identifies the compound as an agonist or an antagonist.

24. [A] The method [according to] of claim 23 wherein said cell is a human cell.

25. A method of determining whether a compound binds to a human 5-$HT_{4(h)}$ receptor which method comprises contacting a cell, or a membrane preparation from the cell wherein the cell was transformed or transfected with an expression vector capable of expressing [according to any of claims 9 to 12 or a membrane preparation comprising] said receptor, with said compound and [establishing] determining the binding affinity of said compound for said receptor.

26. A compound identifiable as an agonist or antagonist according to the method of claim 24 [or 25].

28. The method of claim 36 wherein the method is used to treat a subject in need of [Use of a compound identifiable according to the method of claim 26 or an antisense molecule according to claim 16 in the manufacture of] a medicament for the treatment of any of heartburn, reflux, esophagitis, [Barrett=s] Barrett's esophagus, esophageal cancer, achalasia, esophageal stenosis, esophagel spasms, esophageal hiatal hernia or other esophageal motility disorders, oesophageal irritation, such as asthma, bronchospasms, aspiration [and its consequences] [()bronchitis, (broncho)pneumonia, bronchiectasia[)] and other diseases of the lower oesophageal sphincter, or achalasia; oesophageal stenosis [(due to systemic sclerosis, tumours, burns, or the like)] or compression, oesophageal spasms or other oesophageal motility

disorders, asthma, irritable bowel syndrome, bronchospasms and other airway disorders [possibly connected] including those associated with oesophageal irritation aspiration [and its consequence (bronchitis, (broncho)pneumonia, bronchiectasia)]; hiatus hernia; denervation of the oesophagus [(e.g. after certain types of trauma or surgery)], or disturbances in oesophageal innervation.

30. An antibody specific for a human 5-$HT_{4(h)}$ receptor according to claim 7 [or 19].

31. A kit for determining whether a compound is an agonist or an antagonist of a 5-$HT_{4(h)}$ ligand, which kit comprises a cell according to any of claim[s] 9 [to 12], means for contacting said compound and said ligand with said cell and means for measuring cAMP formation is said cell.

33. A pharmaceutical composition incorporating the nucleic acid sequence according to [any of] claim[s] 1 [to 5], or the antibody according to claim 30, together with a pharmaceutically acceptable carrier, diluent or excipient therefor.

34. A method of identifying a ligand for 5-$HT_{4(h)}$ receptor, which method comprises contacting a cell expressing said receptor with said compound to be tested and monitoring the level of a [any] 5-$HT_{4(h)}$ mediated functional or biological response.